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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,857	12/01/2000	Gary W. Kwong	56208USA8A	4252

32692 7590 02/07/2003

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EXAMINER

JUSKA, CHERYL ANN

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 02/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/728,857

Applicant(s)

KWONG ET AL.

Examiner

Cheryl Juska

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) 42-52 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☒ Claim(s) 28-41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 & 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restriction***

1. Applicant's election with traverse of Group I, claims 1-41, in Paper No. 5 is acknowledged. The traversal is on the ground(s) that (a) a search of one group of claims will reveal art in the other group, (b) different classification of each group is insufficient grounds for restriction, and (c) it would place an undue burden on Applicant's assignee. This is not found persuasive because as noted in the last Office Action, the groups are drawn to distinct inventions, have different classifications, and the search required for one group is not required for the others. Specifically, as shown below, the invention of Group I is not necessarily limited to a textile finishing composition, in general, or a carpet finish, in particular. Thus, the scope of the search of the various groups is not the same and would place an undue burden upon the Examiner.
2. The requirement is still deemed proper and is therefore made FINAL.
3. Claims 42-52 are withdrawn as being drawn to non-elected inventions.

### ***Claim Objections***

4. Claim 3 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 3 depends from itself.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 17 is indefinite for the lack of antecedent basis for "the long chain alcohol." Said alcohol is not disclosed until claim 16, rather than in claim 14, from which 17 depends.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-13 are rejected under 35 USC 102(b) as being anticipated by US 4,499,233 issued to Tetenbaum et al.

10. Applicant claims a water dispersible finishing composition comprising a urethane comprising the reaction product of (a) a polyisocyanate, such as triisocyanate, (b) a long chain alcohol, such as stearyl alcohol, and (c) a polyethylene oxide containing at least one hydroxy group, such as a monomethoxy polyethylene oxide containing one hydroxy group. The urethane has a weighted average HLB of 1-11, preferably 2-8, more preferably 4-7. The monomethoxy polyethylene oxide has a molecular weight ranging from 350-2000. The amount of polyethylene oxide ranges from 5-55, 10-40, or 20-35 wt % based upon the weight of the urethane. The polyethylene oxide contains 1-200 ethylene oxide units.

Tetenbaum discloses a water dispersible modified polyurethane that is the reaction product of (i) a polyisocyanate, (ii) a polyether polyol, (iii) a modifying agent containing at least two active hydrogen moieties, and (iv) a capping agent (abstract). The polyisocyanate may be a triisocyanate (col. 4, lines 44-56). The polyether polyol is a homopolymer or block copolymer of  $[-O-CR_1R_2-CR_3R_4-]$  wherein  $R_1$ ,  $R_2$ ,  $R_3$ , and  $R_4$  are independently selected from the group consisting of H,  $CH_3$ , and  $C_2H_5$  (col. 5, lines 35-47). The polyether polyol is present in an amount ranging from 0.10 to 10.0 moles per mole of polyisocyanate (col. 5, lines 31-35). The molecular weight of the polyether polyol ranges from 4,000 to 20,000, but molecular weights below 4000 are useable (col. 6, lines 5-14). Tetenbaum explicitly teaches the amounts of polyisocyanate, polyether polyol, and modifying agent may be greater than the amounts specified as long as a gel is not obtained (col. 8, lines 20-47). The capping agent may be a hydroxyl compound such as stearyl alcohol (col. 9, lines 13-31).

Thus, Tetenbaum teaches the presently claimed invention with the exception of the recited HLB values. However, it is reasonable to presume that said values are inherent to the Tetenbaum polyurethane. Support for said presumption is found in the use of like reactants to form polyurethane. The burden is upon Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 495. In the alternative, the presently claimed HLB value would have obviously been present once the polyurethane of Tetenbaum is provided. Note *In re Best*, 195 USPQ 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102.

With respect to the preamble limitation, it is noted that said limitation is not given patentable weight at this time. A preamble is generally not accorded any patentable weight

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where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). It is asserted that the polyurethane of Tetenbaum is capable of being employed as a finishing agent. In the event said preamble limitation is given patentable weight, it is asserted that it would have been obvious to one skilled in the art to employ said polyurethane as a finishing composition since it is well known in the art that polyurethanes are suitable for such textile applications. Motivation to do so would be to expand the number of applications of the inventive polyurethane. Therefore, claims 1-9 are rejected as being anticipated by or obvious over the cited reference.

With respect to claims 10-12, Tetenbaum teaches the amount of polyether polyol present in mole percent based on the polyisocyanate, rather than the presently claimed weight percent based on the urethane. However, it is reasonable to presume that said weight percents are inherent to the Tetenbaum polyurethane, since Tetenbaum explicitly teaches amounts other than those disclosed are suitable as long as a gel does not form. Similarly, the amount of ethylene oxide units recited in claim 13 is met by Tetenbaum's teaching of an open range of molecular weights. Therefore, claims 10-13 are rejected as being obvious over the cited reference.

### ***Claim Rejections - 35 USC § 102/103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-13 are rejected under 35 USC 102(b) as being anticipated by or in the alternative, under 35 USC 103(a) as being unpatentable over US 4,180,491 issued to Kim et al.

Kim discloses a polyurethane thickener comprising (i) at least one polyether polyol, (ii) at least one diisocyanate, (iii) at least one polyisocyanate having 3 or more isocyanate groups, (iv) at least one monofunctional active hydrogen compound, (v) at least one monoisocyanate, and (vi) at least one polyhydric alcohol or alcohol ether having three or more hydroxyl groups (col. 3, lines 57-68). The polyisocyanate may be a simple triisocyanate or an isocyanate terminated prepolymer of polyalkylene ether glycols (col. 4, lines 56-61). The monofunctional active hydrogen compound may be a fatty alcohol having 1-24 carbon atoms or an alkanol-ethylene oxide having 1-250 ethylene oxide units (col. 8, lines 14-30). In a working example, Kim teaches the use of octadecanol (i.e., stearyl alcohol) (col. 16, lines 26-37). The polyether polyol may be an adduct of a polyhydroxy compound (i.e., polyol or polyol ether) and an alkylene oxide such as ethylene oxide (col. 6, lines 40-47). The polyether segments of the polyurethane have molecular weights of at least 1500 (col. 6, lines 17-20).

Thus, Kim teaches the presently claimed invention with the exception of the recited HLB values. However, it is reasonable to presume that said values are inherent to the Kim polyurethane. Support for said presumption is found in the use of like reactants to form polyurethane. The burden is upon Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 495. In the alternative, the presently claimed HLB value would have obviously been present once the polyurethane of Kim is provided. Note *In re Best*, 195 USPQ 433, footnote 4 (CCPA

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1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102.

With respect to the preamble limitation, it is noted that said limitation is not given patentable weight at this time. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). It is asserted that the polyurethane of Kim is capable of being employed as a finishing agent. In the event said preamble limitation is given patentable weight, it is asserted that it would have been obvious to one skilled in the art to employ said polyurethane as a finishing composition since it is well known in the art that polyurethanes are suitable for such textile applications. Motivation to do so would be to expand the number of applications of the inventive polyurethane. Therefore, claims 1-3, 5, 6, 8-13 are rejected as being anticipated by or obvious over the cited reference.

13. Claims 14, 15, 18, 19, and 21-27 are rejected under 35 USC 102(b) as being anticipated by, or in the alternative, under 35 USC 103(a) as being unpatentable over US 4,240,943 issued to Sugawara et al.

Sugawara discloses a textile finishing composition comprising a water dispersible urethane made by reacting a polyisocyanate with a polyfunctional compound reactive to said isocyanate (col. 1, lines 6-9 and 65-68). The polyisocyanate may be a triisocyanate (col. 2, lines 51-56). The polyfunctional compound may be a polyether polyol so that the urethane has 10-90



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wt % hydrophilic oxyethylene units (col. 2, lines 22-42 and lines 57-64). Sugawara also teaches additives, such as antistatic agents, stain preventing agents, and softeners (col. 3, lines 57-61).

Thus, Sugawara teaches the presently claimed invention with the exception of the recited HLB values. However, it is reasonable to presume that said values are inherent to the Sugawara polyurethane. Support for said presumption is found in the use of like reactants to form polyurethane and the like application of said urethane as a textile finishing composition. The burden is upon Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 495. In the alternative, the presently claimed HLB value would have obviously been present once the polyurethane of Sugawara is provided. Note *In re Best*, 195 USPQ 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102.

#### ***Claim Rejections - 35 USC § 103***

14. Claims 17 and 20 are rejected under 35 USC 103(a) as being unpatentable over the cited Sugawara reference in view of either the cited Tetenbaum or Kim references.

Sugawara fails to teach the addition of stearyl alcohol. However, as noted above, said alcohol is known in the art as a capping agent. Thus, it would have been obvious to one skilled in the art to include stearyl alcohol in the Sugawara invention in order to cap the ends of the polymer chain so as to keep the urethane water dispersible. Therefore, claims 17 and 20 are rejected as being obvious over the cited prior art.

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*Allowable Subject Matter*

15. Claims 28-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art does not explicitly teach the presently claimed polyurethane finishing composition comprising the specified stainblockers and/or anti-soiling agent.

*Conclusion*

16. The art made of record and not relied upon is considered pertinent to applicant's disclosure.

17. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Cheryl Juska whose telephone number is 703-305-4472. The Examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

cj  
January 27, 2003

  
CHERYL A. JUSKA  
PRIMARY EXAMINER